

### **REMARKS**

The Office Action dated November 16, 2006 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-13 and 24-28 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claim 29 has been added. No new matter has been added. Claims 1-13 and 24-29 are submitted for consideration.

Claims 1, 5-8, 10, 12 and 25 were rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1 and 5-6 of U.S. Patent No. 6,904,034 to Kularatna. Applicants respectfully submit herewith a Terminal Disclaimer in compliance with 37 C.F.R. §1.321(c). As discussed in MPEP §1490, a timely filed Terminal Disclaimer may be used to overcome a non-statutory obviousness-type double patenting rejection. As such, Applicants respectfully submit that the double patenting rejection is rendered moot and request that this rejection be withdrawn.

Claims 1, 25 and 27 were rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent No. 6,711,143 to Balazinski (hereinafter Balazinski). The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in independent claims 1, 25 and 27.

Claim 1, upon which claims 2-13 and 24 depend, recites a method of communicating data between a base station system a serving GPRS support node. The method includes providing protocol data and associated functions, including

encapsulating a data packet with a user datagram protocol and a Internet Protocol. The user datagram protocol includes a user datagram protocol port associated with a network service virtual connection (NS-VC) and, the Internet Protocol provides an Internet Protocol address associated with a network service entity (NSE). The method also includes transmitting the data packet provided with the protocol data.

Claim 25, upon which claim 26 depend, recites a base station system for communicating data with a serving GPRS support node. The base station system includes means for providing protocol data and associated functions, including encapsulating a data packet with a user datagram protocol and a Internet Protocol. The user datagram protocol includes a user datagram protocol port associated with a network service virtual connection (NS-VC) and, the Internet Protocol provides an Internet Protocol address associated with a network service entity (NSE). The base station system also includes means for transmitting the data packet provided with the protocol data.

Claim 27, upon which claim 28 depend, recites serving GPRS support Node for communicating data with a base station system. The serving GPRS support Node includes means for providing protocol data and associated functions, including encapsulating a data packet with a user datagram protocol and a Internet Protocol. The user datagram protocol includes a user datagram protocol port associated with a network service virtual connection (NS-VC) and, the Internet Protocol provides an Internet Protocol address associated with a network service entity (NSE). The serving GPRS support Node also includes means for transmitting the data packet provided with the

protocol data.

As outlined below, Applicant submits that the cited reference of Balazinski does not teach or suggest the elements of claims 1, 25 and 27.

Balazinski teaches a method of converting a Gb interface to IP while continuing to support Frame Relay and without adversely affecting the interface's performance. Col. 3, lines 19-21. Instead of encapsulating Frame Relay information in IP packets, Balazinski modifies the lower NS sub-layer. Col. 3, lines 21-24. Balazinski includes a Base Station System (BSS) and a Serving GPRS Support Node (SGSN) both of which use a protocol stack including a physical layer, a network service (NS) layer including a NS-Sub-Network Service (NS-NSS) layer and a NS-Sub-Network Control (NS-NSC) layer, and Base Station System GPRS Protocol (BSSGP) layer. Col. 3, lines 27-40. The primary function of the BSSGP layer is to provide radio-related QoS, and routing information that is required to transmit user data between a BSS and an SGSN. Col. 3, lines 41-45. On the BSSGP layer, there are a Point-to-Point (PTP) functional entity, a Point-to-Multipoint (PTM) functional entity and a signaling (SIG) functional entity. Col. 3, lines 64-67. The existing NS layer adapts the BSS to the Frame Relay protocol and the main function of the NS layer is to provide transportation for BSSGP Virtual Circuits (BVC) over a Frame Relay network. Col. 4, lines 15-18. The primary functions of the existing NS-NSC sub-layer are transmission of NS Service Data Units (SDU), load sharing between different NS virtual circuits and NS virtual circuit management. The primary functions of the existing NS-SNS layer are providing access to the Frame Relay network or the NSE peer

identity by means of a Network Service-Virtual Link (NS-VL), providing NS virtual circuits between peer NSEs, transferring NS SDUs in sequence order on each NS virtual circuit unless order is not required and indicating to the upper layer the availability/unavailability of an NS virtual circuit. Col. 4, lines 42-67. The protocol stack includes a physical layer, a link layer, an Internet Protocol (IP) Layer, a User Datagram Protocol (UDP) layer, a modified NS layer that is divided into an NS-SNS layer and an NS-NDC layer and the BSSGP layer which is unchanged from the existing protocol stack. Col. 5, lines 1-6.

Balazinski transports information from the SGSN functional entities to the BSS functional entities and instead of using Frame Relay virtual circuits, uses IP packets following multiple routes between end points over a connectionless IP network. The modified Gb interface uses a UDP layer over an IP layer. One UDP port is reserved in order to make the modified NS layer and the BSSGP layer act as an application over the IP stack. Col. 5, lines 14-48.

Applicants submit that Balazinski simply does not teach or suggest each of the elements recited in claims 1, 25 and 27. According to the Office Action, Balazinski teaches encapsulating a data packet with a User Datagram Protocol (UDP) and an Internet Protocol (IP), wherein the UDP includes a UDP port associated with a Network Service Virtual Connection (NS-VC) and, the IP provides an IP address associated with a Network Service Entity (NSE), as recited in claims 1, 25 and 27. The Office Action cites figure 3 and Col. 5, lines 1-6 of Balazinski as teaching encapsulating a data packet with a

UDP and IP. The Office Action also alleged that although Balazinski does not show that the UDP includes a UDP port associated with the Network Service-Virtual Connection and the IP provides an IP address associated with a Network Service Entity as recited, in claims 1, 25 and 27, based on figure 2 and Col. 5, lines 35-37 of Balazinski, the NSE can be associated with UDP ports and IP address.

Col. 5, lines 1-6 and figure 3 of Balazinski show that a protocol stack includes and IP layer and a UDP layer. Page 5, lines 35-37 of Balazinski discloses that one potential for implementing the IP based interface is to use UDP ports as BVCI and NSEI as IP addresses. However, none of the sections cited by the Office Action teach or suggest that this UDP port is included in a UDP that **encapsulates** the packet data unit. Balazinski does not teach or suggest encapsulating a data packet with a UDP and IP, wherein the UDP comprises a UDP port associated with a Network Service-Virtual Connection and the IP provides an IP address associated with a Network Service Entity as recited in claims 1, 25 and 27. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because Balazinski fails to teach or suggest each feature of claims 1, 25 and 27.

Claims 2 and 5-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Balazinski in view of the Admitted Prior Art (APA) of WO 99/16266 to Forslow (hereinafter Forslow). According to the Office Action, Balazinski teaches all of the elements of claims 2 and 5-13 except for explicitly showing the method of communication as recited in claim 1, wherein the UDP port is identified as either for real-

time or non-real-time services. Therefore, the Office Action combined the teaching of Balazinski and Forslow to yield all of the elements of claims 2 and 5-13. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claim 1, upon which claims 2 and 5-13 depend.

Claim 1 and Balazinski have been discussed above. Forslow teaches that a mobile station and a mobile network gateway node each includes a mapper for mapping an individual application flow to one of the circuit-switched network and a packet-switched network bearer depending on the quality of service requested for the individual application flow.

Claims 2 and 5-13 depend on claim 1, and thus incorporate all of the elements of claim 1. Forslow does not cure the deficiencies of Balazinski, as noted above. Specifically, Forslow does not teach or suggest **encapsulating** a data packet with a User Datagram Protocol (UDP) and an Internet Protocol (IP), wherein the UDP includes a UDP port associated with a Network Service Virtual Connection (NS-VC) and, the IP provides an IP address associated with a Network Service Entity (NSE), as recited in claim 1, upon which claims 2 and 5-13 depend. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Balazinski nor Forslow, whether taken singly or combined, teaches or suggests each feature of claim 1 and hence, dependent claims 2 and 5-13 thereon.

Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Balazinski in view of U.S Patent No. 6,636,502 to Lager (hereinafter Lager). According to the Office Action, Balazinski teaches all of the elements of claim 3 except for explicitly showing the method of communication as recited in claim 1, wherein the data packet is associated with a Temporary Logical Link Identifier (TLLI) and a Network Service Access Point Identifier (NSAPI). Therefore, the Office Action combined the teachings of Balazinski and Lager to yield all of the elements of claim 3. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claim 1, upon which claim 3 depends.

Lager teaches a switching device which allows a connection of a terminal of a mobile communications network with one of a plurality of packet data communication network based on a transmission of an indication parameter from the terminal. See at least the Abstract of Lager.

Claim 3 also depends on claim 1 and thus incorporates all of the elements of claim 1. Lager does not cure the deficiencies of Balazinski, as noted above. Specifically, Lager does not teach or suggest **encapsulating** a data packet with a User Datagram Protocol (UDP) and an Internet Protocol (IP), wherein the UDP includes a UDP port associated with a Network Service Virtual Connection (NS-VC) and, the IP provides an IP address associated with a Network Service Entity (NSE), as recited in claim 1, upon which claim 3 depends. Therefore, Applicants respectfully assert that the rejection under

35 U.S.C. §103(a) should be withdrawn because neither Balazinski nor Lager, whether taken singly or combined, teaches or suggests each feature of claim 1 and hence, dependent claim 3.

Claims 24, 26 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Balazinski in view of U.S Patent No. 6,952,728 to Alles. As outlined below, we believe that distinctions exist between claims 24, 26 and 28 and the combined teachings of Balazinski and Alles (hereinafter Alles). According to the Office Action, Balazinski teaches all of the elements of claims 24, 26 and 28 except for explicitly showing that the UDP port includes source and destination UDP ports associated with the NS-VC and the IP provides a sources and destination IP address associated with the NSE. Therefore, the Office Action combined the teaching of Balazinski and Alles to yield all of the elements of claims 24, 26 and 28. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claims 1, 25 and 27, upon which claims 24, 26 and 28 depend.

Alles teaches an Internet service node that enables the provision of desired service policies to each subscriber. The node may include multiple processor groups, with each subscriber being assigned to a processor group. The assigned processor group may be configured with the processing rules, which provide the service policies desired, by the subscriber. See at least the Abstract of Alles.

Claim 24 also depends on claim 1, and thus, incorporates all of the elements of claim 1. Claim 26 depends on claim 25, and thus, incorporates all of the elements of



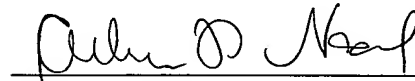
claim 25 and claim 28 depends on claim 27, and thus, incorporates all of the elements of claim 27. Alles does not cure the deficiencies of Balazinski, as noted above. Specifically, there is no discussion or suggestion in Alles of encapsulating a data packet with a User Datagram Protocol (UDP) and an Internet Protocol (IP), wherein the UDP includes a UDP port associated with a Network Service Virtual Connection (NS-VC) and, the IP provides an IP address associated with a Network Service Entity (NSE), as recited in claims 1, 25 and 27, upon which claims 24, 26 and 28. Therefore, Applicant requests that the rejection under 35 U.S.C. §103(a) be withdrawn because neither Balazinski nor Alles, whether taken singly or combined, teaches or suggests each feature of claims 1, 25 and 27 and hence, dependent claim 24, 26 and 28 thereon.

As noted previously, claims 1-13 and 24-29 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-13 and 24-29 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Arlene P. Neal  
Registration No. 43,828

**Customer No. 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
14<sup>TH</sup> Floor  
8000 Towers Crescent Drive  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802

APN:jkm

Enclosures: Additional Claim Fee Transmittal  
Submission of Terminal Disclaimer  
Check No. 15804